25

Date: Wednesday, 5/23/2007 4:02:58 PM
User: Kim Johnston

# Process Sheet

| | | | |
|---|---|---|---|
| Customer | : CU-DAR001 Dart Helicopters Services | Drawing Name | : 350 SKIDTUBE ASSEMBLY LH |
| Job Number | : 32529 | | |
| Estimate Number | : 10266 | | |
| P.O. Number | : N/A | Part Number | : D350636013 |
| This Issue | : 5/23/2007 S.O. No. : N/A | Drawing Number | : D2750 ~~UNDER REVIEW~~ 07.05.24 CB |
| Prsht Rev. | : NC | Project Number | : N/A |
| First Issue | : N/A Type : LANDING GEAR | Drawing Revision | : D |
| Previous Run | : 32528 | Material | : N/A |
| Written By | : | Due Date | : 6/20/2007 Qty: 1 Um: Each |
| Checked & Approved By | : 07.05.24 | | |
| Comment | : Est Rev.H 02.09.25 Rearranged procedure steps KJ<br>est rev I 06.03.30 Per rev. D dwg EC | | |

**Additional Product**

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 1.0 | DC | DOCUMENT CONTROL |

Comment: DOCUMENT CONTROL
Photocopy blue file and type labels per PPP D350-636-013 CHG 002 — KS 07.06.04 (1)

| | | |
|---|---|---|
| 2.0 | D26003BENT | Extrusion Bent |

Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 1 | D2600-3-Bent | Extrusion (Bent) | B 30666 — 7-6-4 |

| | | |
|---|---|---|
| 3.0 | D2744 | Fwd Cap |

Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Cap
Batch: B 29784 BF 07-06-07

| | | |
|---|---|---|
| 4.0 | LANDING GEAR 1 | LANDING GEAR RESOURCE 1 |

Comment: LANDING GEAR RESOURCE 1

1- Mark cut line on aft end of D2600-3-Bent using Jig DT 8150. Cut to length as per Dwg D2750. Deburr end — 7-6-4

2-Drill pilot holes as per Dwg D2750 sheet 3 (D2750-1 details).Drill using drill Jig DT8150 & DT8864 drilling holes labelled "B" only. — 7-6-5

3- Mark fwd end for cutting using Drill Jig DT 8150 & DT8864 and cut as per dwg D2750.

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| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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**Part No:** ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

**QA: N/C Closed:** _____ **Date:** _________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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**NOTE:** Date & initial all entries

Date: Wednesday, 5/23/2007 4:02:58 PM
User: Kim Johnston

# Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY LH

Job Number: 32529

Part Number: D350636013

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|

4-Drill pilot holes for Detail B using DT8330

5-Open float holes to .375"

6-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 and open to 0.250" ***Make sure that wearplate holes are on bottom of tube******

7-Open up holes of Detail A to 0.250" (total of 2 holes per side)

8- Countersink all fwd wearshoe holes (total of 19 holes per side) DO NOT C'SINK THE LAST AFT HOLES (total of 2 per side for blade fitting) as per dwg D2750.

9-Countersink Detail A as per dwg D2750.

10-Open up holes for Detail B, "hole size W" and blade fitting location holes to 0.500" (total of 9 holes per side) as per dwg D2750 .

11-Weld D2744 Cap as per Dwg D2750 and QSI 004.Fill grooves in bend left from bending as per QSI 004
A/R Aluminum Rod M102421

12-Grind welds flush as per Dwg D2750 07-06-07

| Seq. # | Machine Or Operation | Description |
|---|---|---|
| 5.0 | QC9 | VISUAL WELDING INSPECTION |
| Comment: VISUAL WELDING INSPECTION | | PD 07-06-07 |
| 6.0 | QC5 | INSPECT WORK TO CURRENT STEP |
| Comment: INSPECT WORK TO CURRENT STEP | | DP 7-6-7 |
| 7.0 | HAND FINISHING1 | HAND FINISHING RESOURCE #1 |
| Comment: HAND FINISHING RESOURCE #1 Chemical Conversion Coat as per QSI 005 4.1 | | 07-06-07 |
| 8.0 | QC3 | INSPECT POWDER COAT/CHEMICAL CONVERSION |
| Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION | | DP 7-6-14 |



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| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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**Part No:** ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

**QA: N/C Closed:** _____ **Date:** _________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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**NOTE:** Date & initial all entries

Date: Wednesday, 5/23/2007 4:02:58 PM
User: Kim Johnston

# Process Sheet

| | |
|---|---|
| Customer: CU-DAR001 Dart Helicopters Services | Drawing Name: 350 SKIDTUBE ASSEMBLY LH |
| Job Number: 32529 | Part Number: D350636013 |

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 9.0 | D2739 | 350 I Beam |

Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Web Batch: B 32582 — 7-6-14

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 10.0 | D34901 | CROSS BOLT SPACER |

Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
Crossbolt spacer Batch: B32045 BE 07-06-20

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 11.0 | D34905 | CROSS BOLT SPACER |

Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
Crossbolt spacer Batch: B32597 BE 07-06-20

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 12.0 | D2743 | Crossbolt Spacer |

Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)
Crossbolt Spacer Batch: B29011 BE070620

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 13.0 | LANDING GEAR 1 | LANDING GEAR RESOURCE 1 |

Comment: LANDING GEAR RESOURCE 1

7-6-14

1-Open up holes "size X" (total of 4 holes per side) as per dwg D2750

2-Open up holes of Detail V & Detail C to 0.625" (total of 8 holes per side) as per dwg D2750.

3-Chamfer holes of Detail V, Detail C, hole size "W" and "X" per dwg D2750 (welding instructions on sheet 5)

4-Deburr and blow out all chips from inside of tube

5-Bond web D2739 in place as per QSI 015
A/R Sikaflex-291 batch: 12105561
exp. date: 7-10-1

6- Weld spacers D3490-1, D3490-5 and D2743 as per dwg D2750 & QSI004

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| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: ____________________ PAR #: _______ Fault Category: ________________ NCR: Yes No DQA: _____ Date: _________

QA: N/C Closed: _____ Date: _________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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**NOTE:** Date & initial all entries

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# Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY LH

Job Number: 32529

Part Number: D350636013

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| | (welding instructions on sheet 5)<br>A/R Aluminum Rod batch: m104305 / ~~m104721~~ BE 07-06-20<br>7-Grind welds flush as per Dwg D2750 Pm 07-06-20 (1)<br>8-Spot face ground handling holes section J-J (total of 4 places per side) as per dwg D2750 Pm 07-06-20 (1)<br>9-Deburr holes Dm 07-06-20 (1) | |
| 14.0 | QC9 | VISUAL WELDING INSPECTION |
| | Comment: VISUAL WELDING INSPECTION M 07/06/21 (1) | |
| 15.0 | QC5 | INSPECT WORK TO CURRENT STEP |
| | Comment: INSPECT WORK TO CURRENT STEP 07-06-22 (1) | |
| 16.0 | POWDER COATING | POWDER COATING |
| | WASH PRESS. BR 07-08-01<br>M 105068 | |
| | Comment: POWDER COATING<br>Powder Coat Gloss White (Ref. 4.3.5.1) as per Dart QSI 005 4.3 BR 07-08-01 | |
| 17.0 | QC3 | INSPECT POWDER COAT/CHEMICAL CONVERSION |
| | Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION<br>Inspect for foreign object per QSI 024 JT 07-08-02 | |
| 18.0 (see PTO) | ~~NAS1330C3KD166~~ NAS1330C3KD166 | INSERT ✓ |
| | Comment: Qty.: 42.0000 Each(s)/Unit Total : 42.0000 Each(s)<br>INSERT<br>Batch: 103279 ✗ JT 07 08 02 | (PTO) → |
| 19.0 | HAND FINISHING1 | HAND FINISHING RESOURCE #1 |
| | Comment: HAND FINISHING RESOURCE #1<br>1-Install inserts as per dwg D2750 JT 07-08-02 | |



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| W/O: | WORK ORDER CHANGES | | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval<br>Chief Eng / Prod Mgr | Approval<br>QC Inspector |
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Part No: ____________________ PAR #: _______ Fault Category: __________________ NCR: Yes No DQA: _____ Date: __________

QA: N/C Closed: _____ Date: __________

| NCR: | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC<br>Section A | Corrective Action Section B | | | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
| | | | Initial<br>Chief Eng | Action Description<br>Chief Eng | Sign & Date | | | |
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**NOTE:** Date & initial all entries

Date: Wednesday, 5/23/2007 4:02:58 PM
User: Kim Johnston

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services

**Drawing Name:** 350 SKIDTUBE ASSEMBLY LH

**Job Number:** 32529

**Part Number:** D350636013

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 20.0 | QC5 | INSPECT WORK TO CURRENT STEP |

**Comment:** INSPECT INSERTS

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 21.0 | D26483 | Wearpad |

**Comment:** Qty.: 5.0000 Each(s)/Unit Total : 5.0000 Each(s)
Wearpad Batch: B31695

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 22.0 | D265613 | Wearplate |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Wearplate Batch: B30553

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 23.0 | D265635 | Wearplate |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Wearplate Batch: B30554

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 24.0 | D2746 | Wearshoe |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Wearplate Batch: B30141

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 25.0 | D2745 | Bushing |

**Comment:** Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)
Bushing Batch: B31697

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 26.0 | D3488041 | BLADE FITTING ASSEMBLY, LH |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Blade Fitting, LH Batch: B29432 07-08-02



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| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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**Part No:** ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes (No) **DQA:** [signature] **Date:** 07/08/09

**QA: N/C Closed:** _____ **Date:** ________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B: Initial Chief Eng | Action Description Chief Eng | Sign & Date | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| 07-08-09 | 18.0 ↓ 20.0 | Employee used NAS1330C3KB166 instead of NAS1330C3KB166. RC: Human error, Part # was not fully checked. | [signature] | Insert acceptable this time only. Inform employee of deviation, and to check part numbers before using. See W/O's B32528 & B32530 | [signature] 07 08 09; [signature] 07/08/09 | [signature] 070809 | [signature] | [signature] 070809 |
| | | | | | | | | |
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**NOTE:** Date & initial all entries

# Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY LH

Job Number: 32529

Part Number: D350636013

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 27.0 | D3492041 | PLUG ASSEMBLY |

Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)
PLUG ASSEMBLY
Batch: B32598 ✗ GJ

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 28.0 | D3492045 | PLUG ASSEMBLY |

Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)
PLUG ASSEMBLY
Batch: B32599 ✗ GJ

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 29.0 | AN3C5A | Bolt |

Comment: Qty.: 38.0000 Each(s)/Unit Total : 38.0000 Each(s)
Bolt
Batch: M104118 GJ

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 30.0 | AN3C6A | BOLT |

Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
Bolt
Batch: M103693 GJ

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 31.0 | AN3C7A | BOLT |

Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
BOLT
Batch: M103668 GJ

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 32.0 | AN6C44A | BOLT |

Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
BOLT
Batch: M103964 GJ

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 33.0 | AN8C35A | BOLT |

Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
BOLT
Batch: M102671 GJ 07-08-03

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| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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**Part No:** ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

**QA: N/C Closed:** _____ **Date:** _________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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**NOTE:** Date & initial all entries

Date: Wednesday, 5/23/2007 4:02:58 PM
User: Kim Johnston

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services **Drawing Name:** 350 SKIDTUBE ASSEMBLY LH

**Job Number:** 32529 **Part Number:** D350636013

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 34.0 | AN960C10L | washer |

**Comment:** Qty.: 46.0000 Each(s)/Unit Total : 46.0000 Each(s)
washer
Batch: M105057 GJ

| 35.0 | AN960C816L | WASHER |
|---|---|---|

**Comment:** Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)
WASHER
Batch: M104093 GJ

| 36.0 | MS210436 | NUT |
|---|---|---|

**Comment:** Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
NUT
Batch: M103693 GJ

| 37.0 | MS21083C8 | NUT |
|---|---|---|

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
NUT
Batch: M104625 GJ

| 38.0 | NAS1515H3L | WASHER |
|---|---|---|

**Comment:** Qty.: 46.0000 Each(s)/Unit Total : 46.0000 Each(s)
WASHER
Batch: M104603 GJ

| 39.0 | NAS1515H8L | WASHER |
|---|---|---|

**Comment:** Qty.: 10.0000 Each(s)/Unit Total : 10.0000 Each(s)
WASHER
Batch: M104922 GJ

| 40.0 | HAND FINISHING1 | HAND FINISHING RESOURCE #1 |
|---|---|---|

**Comment:** HAND FINISHING RESOURCE #1

1-Spray inside of tube with "LPS-3" batch: M105085
Inspect for foreign obects as Dart QSI 024

GJ 07-08-07 ①



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| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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**Part No:** ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

**QA: N/C Closed:** _____ **Date:** _________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE ASSEMBLY LH

Job Number: 32529

Part Number: D350636013

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| | 2-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D2750<br>SIKA FLEX 241<br>BATCH: M104989<br>EXP DATE: 08-01<br>HS 07-08-07 (0)<br>3-Coat all exposed fasteners with "LPS Procyon" batch: M104251 HS 07-08-07 (1) | |
| 41.0 | QC5 | INSPECT WORK TO CURRENT STEP |
| | Comment: INSPECT WORK TO CURRENT STEP | 07/08/08 (41) |
| 42.0 | PACKAGING 1 | PACKAGING RESOURCE #1 |
| | Comment: PACKAGING RESOURCE #1<br>Pick Packing Kit | |
| 43.0 | D2741 | Blade |
| | Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)<br>Blade<br>Batch: B30556- | |
| 44.0 | AN960C816L | WASHER |
| | Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)<br>Washer<br>Batch: M104093- | |
| 45.0 | MS21083C8 | NUT |
| | Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)<br>Nut<br>Batch: M104625- | |
| 46.0 | AN8C21A | BOLT |
| | Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)<br>Bolt<br>Batch: M104117 - | |

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| W/O: | WORK ORDER CHANGES | | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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**Part No:** ________________ **PAR #:** ______ **Fault Category:** ________________ **NCR:** Yes / No (No circled) **DQA:** [handwritten initials] **Date:** 07/08/09

**QA: N/C Closed:** _____ **Date:** _________

| NCR: | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B: Initial Chief Eng | Corrective Action Section B: Action Description Chief Eng | Corrective Action Section B: Sign & Date | Verification Section C | Approval Chief Eng | Approval QC Inspector |
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**NOTE:** Date & initial all entries

Date: Wednesday, 5/23/2007 4:02:58 PM
User: Kim Johnston

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services

**Drawing Name:** 350 SKIDTUBE ASSEMBLY LH

**Job Number:** 32529

**Part Number:** D350636013

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 47.0 | NAS1515H8L | WASHER |
| | **Comment:** Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s) WASHER Batch: M104955 - | |
| 48.0 | D34931 | WASHER |
| | **Comment:** Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s) WASHER Batch: B32600 - 7/8/8 (1) | |
| 49.0 | QC4 | INSPECT 100% KITS FOR COMPLETENESS |
| | **Comment:** INSPECT 100% KITS FOR COMPLETENESS 07/08/08 | |
| 50.0 | PACKAGING 1 | PACKAGING RESOURCE #1 |
| | **Comment:** PACKAGING RESOURCE #1 Package as per PPP D350-636-013 Rev E 07/8/8 (1) | |
| 51.0 | QC21 | FINAL INSPECTION/W/O RELEASE |
| | **Comment:** FINAL INSPECTION/W/O RELEASE (1) 07/08/09 | |

Job Completion C 07/08/09

B32529



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| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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**Part No:** ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

**QA: N/C Closed:** _____ **Date:** _________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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**NOTE:** Date & initial all entries

DART

| DESIGN | DRAWN BY | DART AEROSPACE USA, INC. PORT HADLOCK, WA |
|---|---|---|
| PH | PH | |
| CHECKED | APPROVED | DRAWING NO. D2750 — REV. D — SHEET 1 OF 5 |
| DATE 06.01.05 | | TITLE 350 SKIDTUBE ASSEMBLY — SCALE NTS |

| Rev | Date | Description |
|---|---|---|
| A | 98.04.16 | NEW ISSUE |
| B | 98.09.01 | CHANGE MS24694-S293 TO AN8-16A |
| C | 98.11.18 | ADD D2750-3/D2750-4<br>INCORPORATE D2738 AND D2740 |
| D | 06.01.05 | ADD HOLES AND SPACERS FOR APICAL FLOATS<br>INCORPORATE DEO 9133/9157 |

RELEASED 06.02.07

UNDER REVIEW 07.02.05 CB — OK CB

add gaskets change to SS wearplates

| Qty -041 | Qty -042 | Qty -043 | Qty -044 | Part Number | Description |
|---|---|---|---|---|---|
| X | | | | D2750-041 | SKIDTUBE ASSEMBLY, LH |
| | X | | | D2750-042 | SKIDTUBE ASSEMBLY, RH |
| | | X | | D2750-043 | SKIDTUBE ASSEMBLY, LH |
| | | | X | D2750-044 | SKIDTUBE ASSEMBLY, RH |
| | | | | | |
| 5 | 5 | 5 | 5 | D2648-3 | WEARPAD |
| 1 | 1 | 1 | 1 | D2656-13 | WEARSHOE |
| 1 | 1 | 1 | 1 | D2656-35 | WEARSHOE |
| 1 | 1 | 1 | 1 | D2746 | WEARSHOE |
| 1 | 1 | 1 | 1 | D2739 | WEB |
| 1 | 1 | 1 | 1 | D2741 | BLADE |
| 8 | 8 | 8 | 8 | D2743 | SPACER |
| 1 | 1 | 1 | 1 | D2744 | CAP |
| 8 | 8 | 8 | 8 | D2745 | BUSHING |
| 1 | | | | D2750-1 | SKIDTUBE WELDMENT, LH |
| | 1 | | | D2750-2 | SKIDTUBE WELDMENT, RH |
| | | 1 | | D2750-3 | SKIDTUBE WELDMENT, LH |
| | | | 1 | D2750-4 | SKIDTUBE WELDMENT, RH |
| 1 | | 1 | | D3488-041 | BLADE FITTING, LH |
| | 1 | | 1 | D3488-042 | BLADE FITTING, RH |
| 4 | 4 | 4 | 4 | D3490-1 | SPACER |
| 4 | 4 | | | D3490-3 | SPACER |
| | | 4 | 4 | D3490-5 | SPACER |
| 8 | 8 | 8 | 8 | D3492-041 | PLUG ASSEMBLY |
| 8 | 8 | | | D3492-043 | PLUG ASSEMBLY |
| | | 8 | 8 | D3492-045 | PLUG ASSEMBLY |
| | | | | | |
| 38 | 38 | 38 | 38 | AN3C5A | BOLT |
| 4 | 4 | 4 | 4 | AN3C6A | BOLT |
| 4 | 4 | 4 | 4 | AN3C7A | BOLT |
| 4 | 4 | 4 | 4 | AN6C44A | BOLT |
| 2 | 2 | 2 | 2 | AN8C21A | BOLT |
| 1 | 1 | 1 | 1 | AN8C35A | BOLT |
| 46 | 46 | 46 | 46 | AN960C10L | WASHER |
| 4 | 4 | 4 | 4 | AN960C816L | WASHER |
| 4 | 4 | 4 | 4 | MS21043-6 | NUT |
| 3 | 3 | 3 | 3 | MS21083C8 | NUT |
| 42 | 42 | 42 | 42 | NAS1330S3KB166 | INSERT |
| 46 | 46 | 46 | 46 | NAS1515H3L | WASHER |
| 12 | 12 | 12 | 12 | NAS1515H8L | WASHER |

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|---|---|---|
| CHECKED | APPROVED | DRAWING NO. D2750 — REV. D — SHEET 2 OF 5 |
| DATE 06.01.05 | | TITLE 350 SKIDTUBE ASSEMBLY — SCALE NTS |

DART

UNDER REVIEW 07.02.05 CB
SS wearplates
OK CB

RELEASED 06.02.07

GENERAL NOTES:

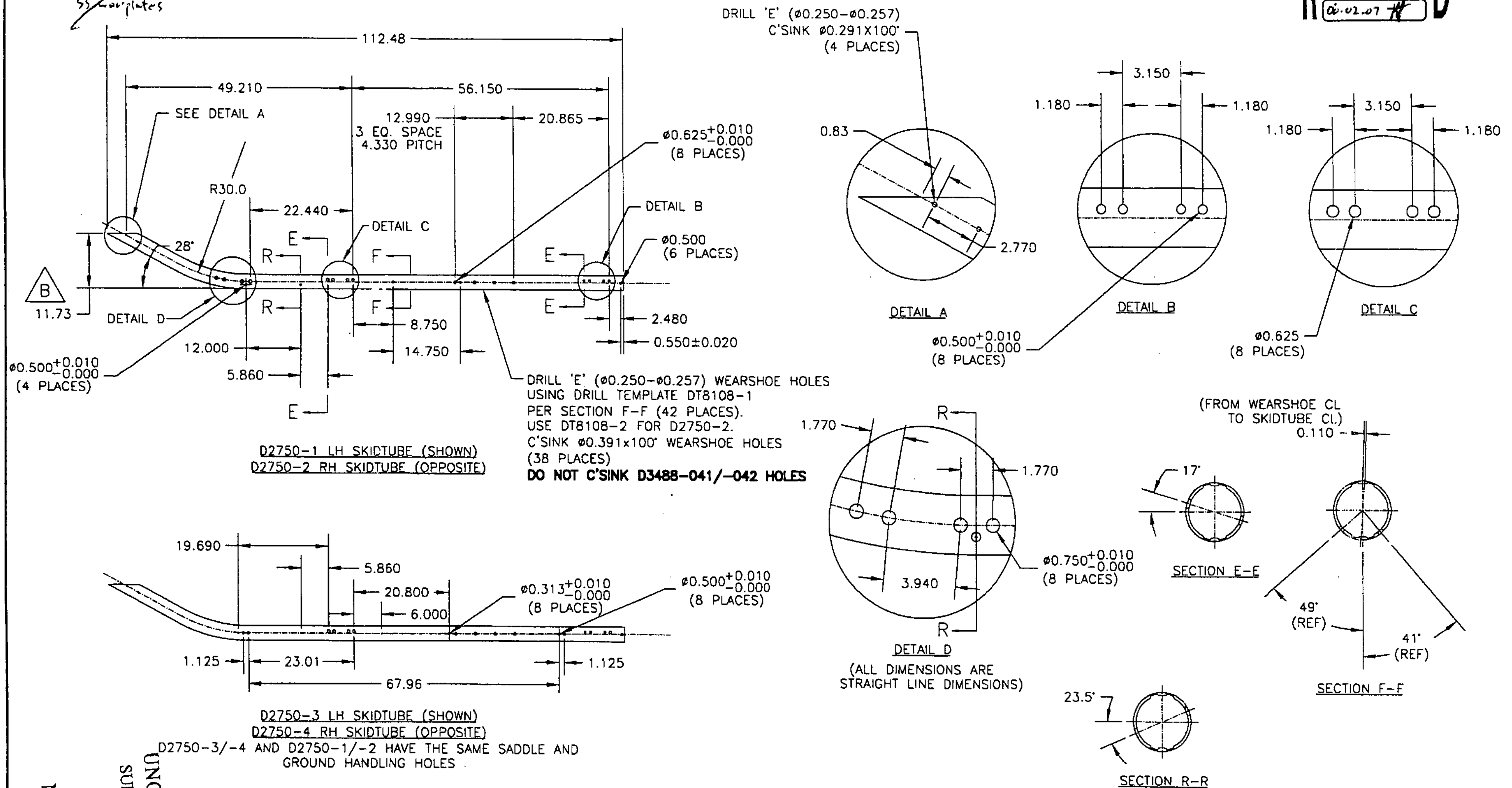
1. ALL DIMENSIONS ARE IN INCHES
2. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
3. MAKE FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
4. DAMAGE TOLERANCE ON BENDING:
   THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 12 INCHES ABOVE THE GROUND. NO GOUGING IS ACCEPTABLE IN THE FLAT PORTION OF THE TUBE. GOUGES UP TO 0.020 ARE ACCEPTABLE IN THE BENT PORTION OF THE TUBE. TUBE O.D. SHOULD BE 3.150 ± 0.010 IN THE FLAT PORTION OF THE TUBE. TUBE O.D. SHOULD BE 3.15 ± 0.030 IN THE BENT PORTION OF THE TUBE.
5. ALL HOLES DRILLED ON CENTERLINES EXCEPT THOSE NOTED BY SECTIONS E-E, F-F, AND R-R.
6. WELDING TO BE DONE PER DART QSI 004.
7. FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
   MINIMUM YIELD TENSILE STRENGTH = 35 ksi
   MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi
8. FINISH:
   ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
   POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
   BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
9. INSTALL NAS1330S3KB166 INSERTS AFTER FINISH AS INDICATED IN D2750-1/-2/-3/-4 WELDING DETAIL ON PAGE 4 AND 5. DRILL 'E' SIZE HOLES (Ø0.250- Ø0.257) FOR WEARSHOE INSERTS. C'SINK Ø0.391 X 100° AND INSTALL INSERTS
10. D3488-041 (OR D3488-042) BLADE FITTING AND AN3-5A/AN3-7A WEARSHOE SCREWS TO BE INSTALLED USING SIKAFLEX-241 (OR EQUIVALENT) SEALANT.
11. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
12. APPLY A LAYER OF SIKAFLEX –241/-291 ADHESIVE BETWEEN THE BOTTOM OF THE SKIDTUBE ASSEMBLY AND THE WEARPLATES

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UNDER REVIEW
07.03.15 CB
SS wear plates
ok CB

RELEASED 06.02.07

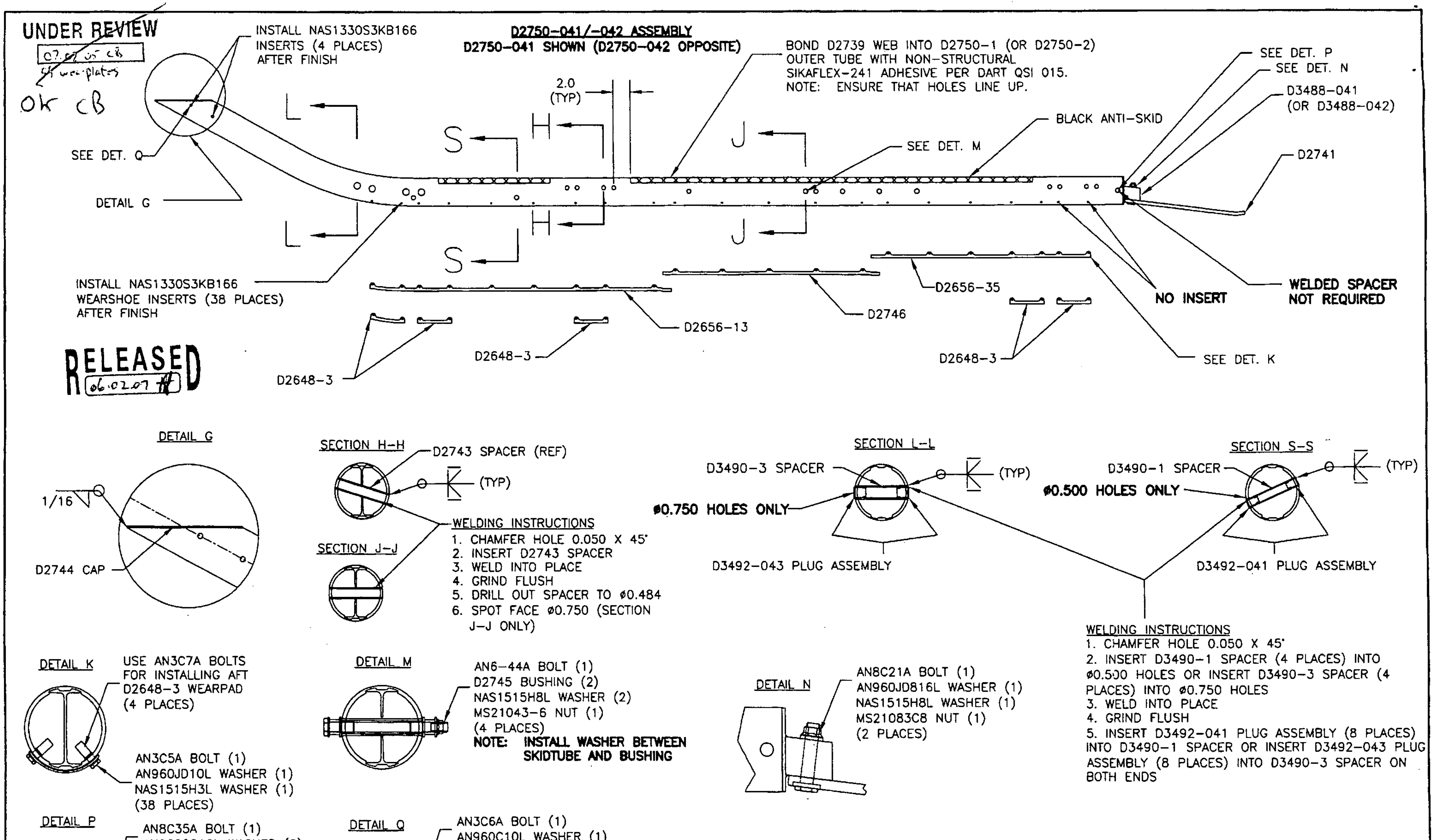



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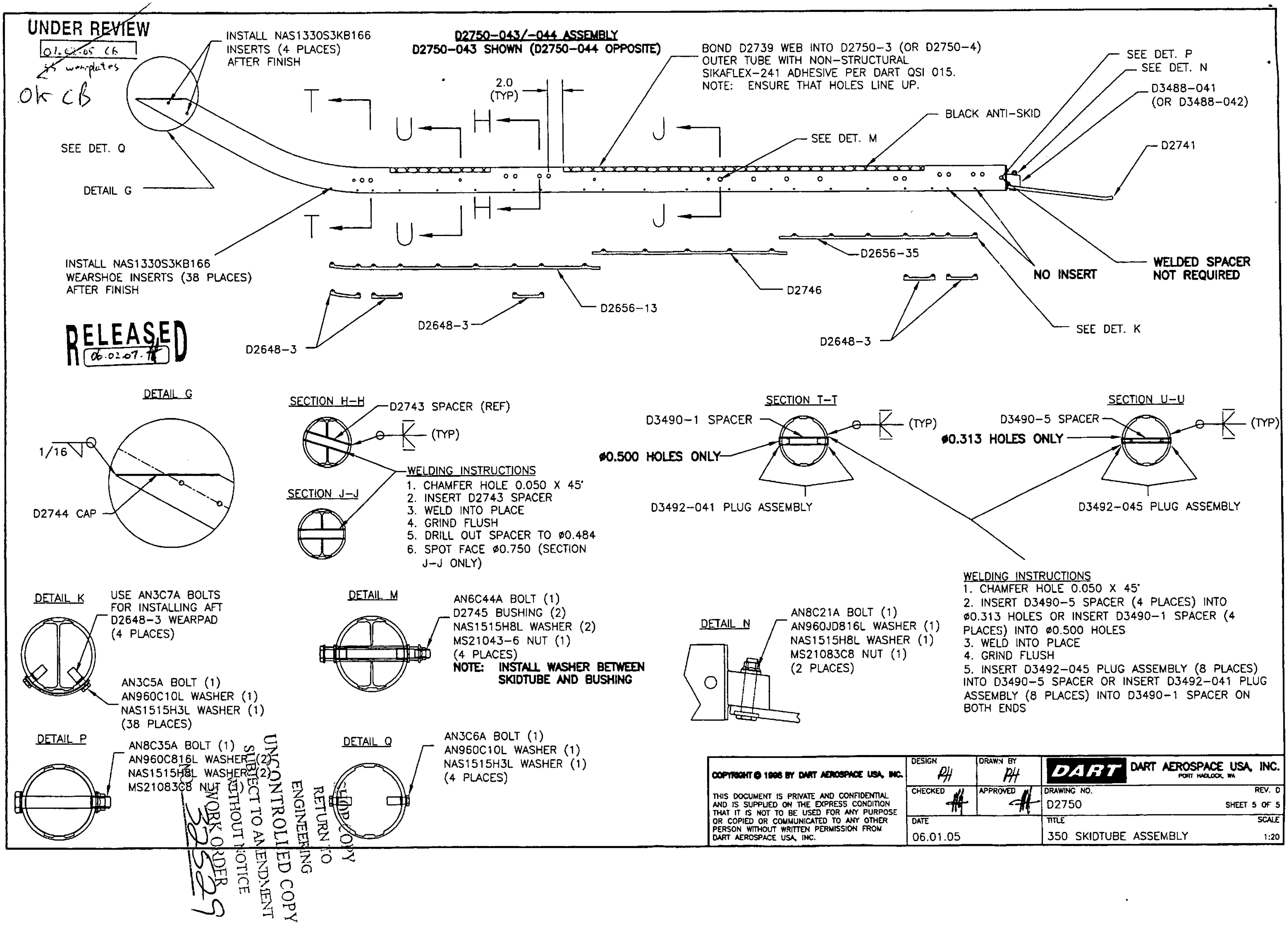
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| DATE 06.01.05 | | TITLE 350 SKIDTUBE ASSEMBLY — SCALE 1:20 |




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| DATE 06.01.05 | | TITLE 350 SKIDTUBE ASSEMBLY — SCALE 1:20 |


UNDER REVIEW
01.02.05 CB
as woreplates
Ok CB
D2750-043/-044 ASSEMBLY
D2750-043 SHOWN (D2750-044 OPPOSITE)
INSTALL NAS1330S3KB166 INSERTS (4 PLACES) AFTER FINISH
BOND D2739 WEB INTO D2750-3 (OR D2750-4) OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015.
NOTE: ENSURE THAT HOLES LINE UP.
SEE DET. P
SEE DET. N
D3488-041 (OR D3488-042)
2.0 (TYP)
BLACK ANTI-SKID
SEE DET. M
D2741
SEE DET. Q
DETAIL G
T
U
H
J
INSTALL NAS1330S3KB166 WEARSHOE INSERTS (38 PLACES) AFTER FINISH
D2656-35
D2746
D2656-13
NO INSERT
WELDED SPACER NOT REQUIRED
SEE DET. K
D2648-3
RELEASED 06.02.07
DETAIL G
1/16
D2744 CAP
SECTION H-H
D2743 SPACER (REF)
(TYP)
SECTION J-J
WELDING INSTRUCTIONS
1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2743 SPACER
3. WELD INTO PLACE
4. GRIND FLUSH
5. DRILL OUT SPACER TO ø0.484
6. SPOT FACE ø0.750 (SECTION J-J ONLY)
SECTION T-T
D3490-1 SPACER
ø0.500 HOLES ONLY
D3492-041 PLUG ASSEMBLY
SECTION U-U
D3490-5 SPACER
ø0.313 HOLES ONLY
D3492-045 PLUG ASSEMBLY
WELDING INSTRUCTIONS
1. CHAMFER HOLE 0.050 X 45°
2. INSERT D3490-5 SPACER (4 PLACES) INTO ø0.313 HOLES OR INSERT D3490-1 SPACER (4 PLACES) INTO ø0.500 HOLES
3. WELD INTO PLACE
4. GRIND FLUSH
5. INSERT D3492-045 PLUG ASSEMBLY (8 PLACES) INTO D3490-5 SPACER OR INSERT D3492-041 PLUG ASSEMBLY (8 PLACES) INTO D3490-1 SPACER ON BOTH ENDS
DETAIL K
USE AN3C7A BOLTS FOR INSTALLING AFT D2648-3 WEARPAD (4 PLACES)
AN3C5A BOLT (1)
AN960C10L WASHER (1)
NAS1515H3L WASHER (1)
(38 PLACES)
DETAIL M
AN6C44A BOLT (1)
D2745 BUSHING (2)
NAS1515H8L WASHER (2)
MS21043-6 NUT (1)
(4 PLACES)
NOTE: INSTALL WASHER BETWEEN SKIDTUBE AND BUSHING
DETAIL N
AN8C21A BOLT (1)
AN960JD816L WASHER (1)
NAS1515H8L WASHER (1)
MS21083C8 NUT (1)
(2 PLACES)
DETAIL P
AN8C35A BOLT (1)
AN960C816L WASHER (2)
NAS1515H8L WASHER (2)
MS21083C8 NUT (1)
DETAIL Q
AN3C6A BOLT (1)
AN960C10L WASHER (1)
NAS1515H3L WASHER (1)
(4 PLACES)
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NO. 113

# AWS D17.1.2001

# QUALIFICATION TEST RECORD

**Name** Barclay Elliott

**Joint Welding Procedure** Tig

**Part number and Job number** 350636014 /A32531

## TEST WELDS REQUIRED

**BASE METAL** Alum **WELDING PROCESS** Tig

**Penetration** Complete [ ] Partial [✓] **Single Weld** [✓] **Double Weld** [ ]

**Current** AC [✓] DC [ ] **Backing** YES [ ] NO [✓]

| | Position | | Vertical Down [ ] | Up [ ] |
|---|---|---|---|---|
| **Sheet Groove** | 1G [ ] | 2G [ ] | 3G [ ] | 4G [ ] |
| **Tube Groove** | 1G [ ] | 2G [ ] | 5G [ ] | 6G [ ] |
| **Sheet Fillet** | 1F [ ] | 2F [ ] | 3F [ ] | 4F [ ] |
| **Tube Fillet** | 1F [ ] | 2F [ ] | 4F [ ] | 5F [ ] |

N/A

**Crossbolt Spacer** Welded into ______________ Skidtube

## TEST RESULTS

**Visual** Pass [✓] Fail [ ]

**Penetration** Pass [✓] Fail [ ]

**Crossbolt Spacer** Pass [✓] Fail [ ]

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

**Date of Test Coupon** 07/06/19 **Qualifier** [signature]